

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

At the outset, the Examiner is kindly asked to reconsider the finality of the most recent Official Action. In the Amendment filed on January 7, 2005, minor wording changes were incorporated into the claims, but it is believed that such amendments were not substantive and did not necessitate the new grounds of rejection set forth in the most recent Official Action. For example, to avoid awkward wording, the recitation of the "not-through hole" was changed to --blind hole--. In addition, the recitation of the "pin" in the latter part of Claim 1 was changed to --second member-- to correct an obvious typographical error. Further, the term "pressed" referring to the disposition of the second member in the blind hole was changed to --press-fit—as an alternative phrase for the original claim terminology. It is thus believed that the amendments to the claims were not substantive in nature and did not necessitate the new grounds of rejection set forth in the recently issued final Official Action. Accordingly, the Examiner is kindly asked to reconsider and withdraw the finality of the Official Action.

By way of this Amendment, the subject matter of Claim 1 has been incorporated into Claim 2, and Claims 1, 3, 4 and 8 have been canceled. Thus, entry of this Amendment is respectfully requested as it presents a previously dependent claim in independent form and reduces the issues going forward by virtue of the cancellation of the noted claims.

The amended version of Claim 2 presented here defines that the brake actuator element which is mounted so as to always be in contact with hydraulic fluid

in a brake fluid pressure circuit comprises a first member formed with a blind hole and a second member press-fit into the blind hole, with one of the first and second members being formed with a channel through which any gap present between the bottom of the second member and the bottom of the blind hole is in communication with the outside of the blind hole, with the channel being defined by a cylindrical inner periphery of the blind hole and a flat cut surface formed on the outer periphery of a portion of the second member which is press-fit into the hole.

In the rejection of Claims 1-3, the Official Action notes that U.S. Patent No. 6,302,498 to *Ariki et al.* discloses a pin 23 positioned in a blind hole of a piston 24. However, *Ariki et al.* does not disclose a channel through which any gap present between the bottom of the pin 23 and the bottom of the blind hole is in communication with the outside of the blind hole, wherein such channel is defined by a cylindrical inner periphery of the blind hole and a flat cut surface formed on the outer periphery of a portion of the second member which is press-fit into the hole.

The Official Action also refers to the disclosure in the article entitled "Fachkunde für metallverarbeitende Berufe" authored by *Leyensetter*. However, this article does not disclose the channel recited in Claim 2 and it does not appear that the channel configuration recited in Claim 2 is addressed in the Official Action. *Leyensetter* discloses a somewhat notch-shaped channel, but this channel configuration differs from the channel configuration defined in independent Claim 2.

The attachment to the Amendment includes two series of illustrations provided for explanatory purposes. Illustrations 1a and 1b show the general relationship between the blind hole and the second member before and after the second member is pressed into the blind hole, and depicting the channel

configuration recited in Claim 2. Illustrations 2a and 2b show the general relationship between the blind hole and the second member before and after the second member is pressed into the blind hole, and depicting the notch-shaped channel configuration disclosed in *Leyensetter*.

Illustration 1a shows the channel configuration recited in Claim 2 that is defined by a cylindrical inner periphery of the blind hole and a flat cut surface on the outer periphery of a portion of the second member. As illustrated, the cross-section of this channel is rather small or narrow. On the other hand, illustration 2a shows that the notch-shaped channel disclosed in *Leyensetter* possesses a larger cross-section.

When the second member is pressed into the blind hole of the first member, the two members scrape against one another, thus possibly producing burrs. Such burrs can drop into the gap that is present between the bottom of the second member and the bottom of the blind hole. To the extent burrs are present in the gap, such burrs may flow through the channel together with hydraulic oil and can mix into the hydraulic oil circulating in the brake circuit. In the brake circuit, there are a large number of valves and if burrs mix into the brake circuit, the burrs may get stuck between the valve body and the valve seat of one or more of the valves in the brake circuit as depicted in illustrations 1c and 2c on the attachment to this Amendment. If a thick or large burr becomes stuck between the valve body and the valve seat, it is possible that the valve will not be able to close completely or properly. In contrast, with thin or small burrs, such a problem is not as likely to occur if such burrs become stuck between the valve body and the seat of the valve. This can be readily seen

through a comparison of illustrations 1c and 2c on the attachment to this Amendment.

As mentioned above, and as shown in illustrations 1b and 2b of the attachment to this Amendment, the channel defined by a cylindrical inner periphery of the blind hole and a flat cut surface on the outer periphery of a portion of the second member possesses a much narrower cross-section as compared to the notch-shaped channel disclosed in *Leyensetter*. Thus, with the claimed channel recited in independent Claim 2, only relatively thin burrs resulting from the second member being pressed into the blind hole of the first member are able to pass through the channel. On the other hand, because the notch-shaped channel disclosed in *Leyensetter* possesses a larger cross-section, relatively larger burrs can pass through the channel after the second member is pressed into the blind hole of the first member. As discussed above, larger burrs passing through the channel can become stuck between the valve body and the valve seat, thus adversely affecting the ability of the valve to close completely or properly.

It is thus seen that the claimed channel recited in independent Claim 2 differs from and provides advantages over the notch-shaped channel disclosed in *Leyensetter*. Further, the channel recited in independent Claim 2 can be formed in a relatively simple manner compared to the notch-shaped channel illustrated in *Leyensetter*.

Considering that *Leyensetter* does not disclose the channel configuration recited in Claim 2, it is respectfully submitted that the combined disclosures contained in *Ariki et al.* and *Leyensetter* would not have directed one to do that which

is defined in independent Claim 2 as the invention. Accordingly, withdrawal of the rejection of record and allowance of this application are earnestly solicited.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: July 7, 2005

By: 
Matthew L. Schneider
Registration No. 32,814

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620